ABSTRACT OF DISCLOSURE

Image data of a target pixel and peripheral pixels are stored in a memory. Using a most significant bit extractor circuit, 4 most significant bits of data are extracted from each image data. A histogram circuit generates a histogram of the extracted 4-bit data. Referring to the histogram, a data processor circuit (17) replaces the image data of the target pixel with a maximum value of the numbers of pixels having the same level and outputs the processed data. Then, a digit-complementing circuit converts the data output from the data processor circuit to 8-bit data and outputs the converted data. In this manner, a regular image is converted into an image similar to a draft-design image.